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<110> MADDON, Paul J.  
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SCHÜLKE, Norbert  
GARDNER, Jason  
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<400> 16

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ggatctcacc atgaggggtcc ctgctcagct cctgggactc ctgctgctct ggctcccaga      60
taccagatgt gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga      120
cagagtcacc atcacttgcc gggcgagtc gggcattagc aattatttag cctgggtatca      180
gcagaaaaca gggaaagttc ctaagttcct gatctatgaa gcatccactt tgcaatcagg      240
gggtcccatct cggttcagtg gcggtggatc tgggacagat ttcaactctca ccatcagcag      300
cctgcagcct gaagatgttg caacttatta ctgtcaaaat tataacagtg ccccatcac      360
tttcggccct gggaccaaag tggatatcaa acgaactgtg gctgcaccct ctgtcttcat      420
cttcccgcca tctgatgagc agttgaaatc tggaactgct agc                        463

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<210> 17

<211> 127

<212> PRT

<213> Homo sapiens

<400> 17

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Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp Leu Pro
1          5          10          15
Asp Thr Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
20        25        30
Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly
35        40        45
Ile Ser Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Lys Val Pro
50        55        60
Lys Phe Leu Ile Tyr Glu Ala Ser Thr Leu Gln Ser Gly Val Pro Ser
65        70        75        80
Arg Phe Ser Gly Gly Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
85        90        95
Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn
100       105       110

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Ser Ala Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys  
115 120 125

<210> 18

<211> 508

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 18  
ggatctcacc atgggggtcaa ccgccatcct caccatggag ttggggctgc gctggggttct 60  
cctcgttgct cttttaagag gtgtccagtg tcagggtgcag ctggtggagt ctgggggagg 120  
cgtgggtccag cctgggaggt ccctgagact ctctgtgtgca gcgtctggat tcaccttcag 180  
taactatgtc atgcactggg tccgccaggc tccaggcaag gggctggagt ggggtggcaat 240  
tatatggtat gatggaagta ataaatacta tgcagactcc gtgaagggcc gattcaccat 300  
ctccagagac aattccaaga acacgctgta tctgcaaatg aacagcctga gagccgagga 360  
cacggctgtg tattactgtg cgggtggata taactggaac tacgagtacc actactacgg 420  
tatggacgtc tggggccaag ggaccacggt caccgtctcc tcagcctcca ccaaggggccc 480  
atcggctcttc cccctggcac cctctagc 508

<210> 19

<211> 143

<212> PRT

<213> Homo sapiens

<400> 19

Met Glu Leu Gly Leu Arg Trp Val Leu Leu Val Ala Leu Leu Arg Gly  
1 5 10 15  
Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln  
20 25 30  
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe  
35 40 45  
Ser Asn Tyr Val Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
50 55 60  
Glu Trp Val Ala Ile Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala



65		70		75		80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn						
	85			90		95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val						
	100			105		110
Tyr Tyr Cys Ala Gly Gly Tyr Asn Trp Asn Tyr Glu Tyr His Tyr Tyr						
	115			120		125
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser						
	130			135		140

<210> 20

<211> 463

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region, portion of C region and 3' XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 20	
ggatctcacc atgaggggtcc ccgctcagct cctgggggtc ctgctgctct gtttcccagg	60
tgccagatgt gacatccaga tgaccagtc tccatcctca ctgtctgcat ctgtaggaga	120
cagagtcacc atcacttgct gggcgagtca gggcattacc aattatttag cctgggtttca	180
gcagaaacca gggaaagccc ctaagtccct tatctatgct gcatccagtt tgcaaagtgg	240
gggtcccatca aagttcagcg gcagtggatc tgggacagat ttcagtctca ccatcagcag	300
cctgcagcct gaagattttg caacttatta ctgccaacag tataatagtt acccgatcac	360
cttcggccaa gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtcttcat	420
cttcccgcga tctgatgagc agttgaaatc tggaactgct agc	463

<210> 21

<211> 127

<212> PRT

<213> Homo sapiens

<400> 21

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Cys Phe Pro	
1	15
	5
	10
Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser	
	30
	20
	25

Ala	Ser	Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly
		35					40					45			
Ile	Thr	Asn	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro
	50					55					60				
Lys	Ser	Leu	Ile	Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser
65					70					75					80
Lys	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Ser	Leu	Thr	Ile	Ser
				85					90					95	
Ser	Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn
			100					105					110		
Ser	Tyr	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys	
		115					120					125			

<210> 22

<211> 490

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 22	
ggatctcacc atggagttgg gacttagctg ggttttcctc gttgctcttt taagaggtgt	60
ccagtgtcag gtccagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct	120
gagactctcc tgtgcagcgt ctggattcac cttcagtagc tatggcatgc actgggtccg	180
ccaggctcca ggcaaggggc tggactgggt ggcaattatt tggcatgatg gaagtaataa	240
atactatgca gactccgtga agggccgatt caccatctcc agagacaatt ccaagaagac	300
gctgtacctg caaatgaaca gtttgagagc cgaggacacg gctgtgtatt actgtgcgag	360
agcttggggc tatgactacg gtgactatga atactacttc ggtatggacg tctggggcca	420
agggaccacg gtcaccgtct cctcagcctc caccaagggc ccatcgggtct tccccctggc	480
accctctagc	490

<210> 23

<211> 145

<212> PRT

<213> Homo sapiens

<400> 23

Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly  
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln  
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe  
35 40 45

Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
50 55 60

Asp Trp Val Ala Ile Ile Trp His Asp Gly Ser Asn Lys Tyr Tyr Ala  
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys  
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val  
100 105 110

Tyr Tyr Cys Ala Arg Ala Trp Ala Tyr Asp Tyr Gly Asp Tyr Glu Tyr  
115 120 125

Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser  
130 135 140

Ser  
145

<210> 24

<211> 463

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 24

ggatctcacc atgaggggtcc ctgctcagct cctgggggtcc ctgctgctct gtttcccagg 60

tgccagatgt gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga 120

cagagtcacc atcacttgtc gggcgagtca gggcattagc cattatttag cctgggtttca 180

gcagaaacca gggaaagccc ctaagtcctt gatctatgct gcatccagtt tqcaaagtgg 240

ggtcccatca aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag 300

cctacagcct gaagattttg caacttatta ctgccaacag tataatagtt tcccqctcac 360

tttcggcgga gggaccaagg tggagatcaa' acgaactgtg gctgcaccat ctgtcttcat 420  
cttcccgcca tctgatgagc agttgaaatc tggaactgct agc 463

<210> 25

<211> 127

<212> PRT

<213> Homo sapiens

<400> 25

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Cys Phe Pro  
1 5 10 15  
Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser  
20 25 30  
Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly  
35 40 45  
Ile Ser His Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro  
50 55 60  
Lys Ser Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser  
65 70 75 80  
Lys Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser  
85 90 95  
Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn  
100 105 110  
Ser Phe Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys  
115 120 125

<210> 26

<211> 469

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region,  
portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning  
junction

<400> 26

ggatcccacc atgggggtcaa ccgtcatcct cgccctctctc ctgggtgttc tccaaggagt 60  
ctgtgccgag gtgcagctgg tgcagtctgg agcagaggtg aaaaagcccg gggagtctct 120  
gaagatctcc tgtaaggggt ctggatacag ctttaccagt tactggatcg gctgggtgcg 180

```
ccagatgccc gggaaaggcc tggagtggat ggggatcacc taccctgggtg actctgatac 240
cagatacagc ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatcagcac 300
cgcctacctg cagtggagca gcctgaaggc ctccgacacc gccatgtatt actgtgcgag 360
acggatggca gcagctggcc cctttgacta ctggggccag ggaaccctgg tcaccgtctc 420
ctcagcctcc accaagggcc catcggtctt cccctggca ccctctagc 469
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<210> 27

<211> 138

<212> PRT

<213> Homo sapiens

<400> 27

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Met Gly Ser Thr Val Ile Leu Ala Leu Leu Leu Ala Val Leu Gln Gly
1          5          10          15
Val Cys Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20        25        30
Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe
35        40        45
Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu
50        55        60
Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser
65        70        75        80
Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser
85        90        95
Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met
100       105       110
Tyr Tyr Cys Ala Arg Arg Met Ala Ala Ala Gly Pro Phe Asp Tyr Trp
115      120      125
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
130      135
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<210> 28

<211> 466

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3' XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 28  
 ggatctcacc atgaggggtcc ccgctcagct tctcttcctt ctgctactct ggctcccaga 60  
 taccactgga ggaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga 120  
 aagagccacc ctctcctgca ggaccagtca gagtattggc tggaacttag cctggtacca 180  
 acagaaacct ggccaggctc ccaggctcct catctatggg gcatcttcca ggaccactgg 240  
 tatcccagcc aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag 300  
 cctgcagctct gaagattctg cagtttatta ctgtcagcat tatgataact ggcccatgtg 360  
 cagttttggc caggggaccg agctggagat caaacgaact gtggctgcac catctgtctt 420  
 catcttcccg ccatctgatg agcagttgaa atctggaact gctagc 466

<210> 29

<211> 128

<212> PRT

<213> Homo sapiens

<400> 29

Met	Arg	Val	Pro	Ala	Gln	Leu	Leu	Phe	Leu	Leu	Leu	Leu	Trp	Leu	Pro	1	5	10	15
Asp	Thr	Thr	Gly	Gly	Ile	Val	Met	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	20	25	30	
Val	Ser	Pro	Gly	Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Thr	Ser	Gln	Ser	35	40	45	
Ile	Gly	Trp	Asn	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	50	55	60	
Arg	Leu	Leu	Ile	Tyr	Gly	Ala	Ser	Ser	Arg	Thr	Thr	Gly	Ile	Pro	Ala	65	70	75	80
Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	85	90	95	
Ser	Leu	Gln	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	Gln	His	Tyr	Asp	100	105	110	
Asn	Trp	Pro	Met	Cys	Ser	Phe	Gly	Gln	Gly	Thr	Glu	Leu	Glu	Ile	Lys	115	120	125	

<210> 30

<211> 487

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 30  
ggatctcacc atggagtttg ggctgtgctg gattttcctc gttgctcttt taagaggtgt 60  
ccagtgtcag gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct 120  
gagactctcc tgtgcagcct ctggattcac cttcattagc tatggcatgc actgggtccg 180  
ccaggctcca ggcaaggggc tggagtgggt ggcagttata tcatatgatg gaagtaataa 240  
atactatgca gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac 300  
gctgtatctg caaatgaaca gcctgagagc tgaggacacg gctgtgtatt actgtgcgag 360  
agtattagtg ggagctttat attattataa ctactacggg atggacgtct ggggcccaagg 420  
gaccacggtc accgtctcct cagcctccac caagggccca tcggtcttcc ccctggcacc 480  
ctctagc 487

<210> 31

<211> 144

<212> PRT

<213> Homo sapiens

<400> 31

Met	Glu	Phe	Gly	Leu	Cys	Trp	Ile	Phe	Leu	Val	Ala	Leu	Leu	Arg	Gly	1	5	10	15
Val	Gln	Cys	Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	20	25	30	
Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	35	40	45	
Ile	Ser	Tyr	Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	50	55	60	
Glu	Trp	Val	Ala	Val	Ile	Ser	Tyr	Asp	Gly	Ser	Asn	Lys	Tyr	Tyr	Ala	65	70	75	80
Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	85	90	95	
Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	100	105	110	

Tyr Tyr Cys Ala Arg Val Leu Val Gly Ala Leu Tyr Tyr Tyr Asn Tyr  
115 120 125

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser  
130 135 140

<210> 32

<211> 478

<212> DNA

<213> Artificial Sequence

<220>

<223> Includes BamHI/BglIII cloning junction, signal peptide, V region, portion of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction

<400> 32  
ggatctcacc atgaggggtcc ctgctcagct cctggggctg ctaatgctct ggatacctgg 60  
atccagtgc gatattgtga tgaccagac tccactctct ctgtccgtca cccctggaca 120  
gccggcctcc atctcctgca agtctagtca gagcctcctg catagtgatg gaaagacctt 180  
tttgtattgg tatctgcaga agccaggcca gcctccacag ctctgatct atgaggtttc 240  
caaccggttc tctggagtgc cagatagggt cagtggcagc gggtcaggga cagatttcac 300  
actgaaaatc agccgggtgg aggctgagga tgttgggctt tattactgca tgcaaagtat 360  
acagcttccg ctcactttcg gcggaggag caaggtggag atcaaacgaa ctgtggctgc 420  
accatctgtc ttcactttcc cgccatctga tgagcagttg aaatctggaa ctgctagc 478

<210> 33

<211> 132

<212> PRT

<213> Homo sapiens

<400> 33

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Ile Pro  
1 5 10 15

Gly Ser Ser Ala Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser  
20 25 30

Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser  
35 40 45

Leu Leu His Ser Asp Gly Lys Thr Phe Leu Tyr Trp Tyr Leu Gln Lys  
50 55 60



[illegible]